

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A fluorescent protein, as shown in SEQ ID NO:8 ~~SEQ ID NO: 4~~, derived from a ~~Green Fluorescent Protein (GFP)~~, wherein the amino acid in position 1 preceding the chromophore has been substituted by an aliphatic amino acid, and wherein the Glutamic acid in position 222 has been substituted by an amino acid selected from the group consisting of G, A, V, L and I.

2. (Currently Amended) A fluorescent protein according to claim 1, wherein the chromophore is in position 65-67 of the predicted primary amino acid sequence of GFP as shown in SEQ ID NO:8 ~~SEQ ID NO: 4~~.

3. (Previously Presented) A fluorescent protein according to claim 1 or 2, said protein being derived from *Aequorea victoria* or *Renilla*.

4. (Original) A fluorescent protein according to claim 1, wherein the amino acid F in position 64 of the GFP has been substituted by an aliphatic amino acid.

5. (Original) A fluorescent protein according claim 1, wherein the amino acid F in position 64 of the GFP has been substituted by an amino acid selected from the group consisting of L, I, V, A and G.

6. (Original) A fluorescent protein according to claim 1, wherein the amino acid F in position 64 of the GFP has been substituted by L.

7. (Cancelled).

8. (Original) A fluorescent protein according to claim 1, wherein the amino acid E in position 222 of the GFP has been substituted by G.

9. (Currently Amended) A fluorescent protein according to claim 1 having the amino acid sequence disclosed in SEQ ID NO:8 ~~SEQ ID NO: 4~~.

10. (Cancelled).

11. (Original) A fusion compound comprising a fluorescent protein (GFP) according to claim 1, wherein the GFP is linked to a polypeptide.

12. (Previously Presented) A fusion compound according to claim 11, wherein the polypeptide is a kinase or a cytoskeletal element.

13-19. (Cancelled).

20. (Previously Presented) A fusion compound according to claim 12, wherein the polypeptide is the catalytic subunit of protein kinase A, protein kinase C, or Erk1.

21. (Previously Presented) A fluorescent protein according to claim 1, wherein the amino acid E in position 222 of the GFP has been substituted by an amino acid selected from the group consisting of A, V, L and I.

22. (Currently Amended) A fluorescent protein, comprising a Green Fluorescent Protein (GFP) comprising an amino acid sequence wherein the amino acid at the position corresponding to position 64 of SEQ ID NO:8 ~~SEQ ID NO:4~~ is substituted with an

aliphatic amino acid, and wherein the amino acid at the position corresponding to the position 222 of SEQ ID NO:8 ~~SEQ ID NO:4~~ has been substituted by an amino acid selected from the group consisting of G, A, V, L and I.

23. (New) A fluorescent protein, as shown in SEQ ID NO: 4, wherein the amino acid in position 1 preceding the chromophore has been substituted by an aliphatic amino acid, and wherein the Glutamic acid in position 223 has been substituted by an amino acid selected from the group consisting of G, A, V, L and I.

24. (New) A fluorescent protein according to claim 23, wherein the chromophore is in position 66-68 of the predicted primary amino acid sequence of GFP as shown in SEQ ID NO: 4.

25. (New) A fluorescent protein according to claim 23 or 24, said protein being derived from *Aequorea victoria* or *Renilla*.

26. (New) A fluorescent protein according to claim 23, wherein the amino acid F in position 65 of the GFP has been substituted by an aliphatic amino acid.

27. (New) A fluorescent protein according claim 23, wherein the amino acid F in position 65 of the GFP has been substituted by an amino acid selected from the group consisting of L, I, V, A and G.

28. (New) A fluorescent protein according to claim 23, wherein the amino acid F in position 65 of the GFP has been substituted by L.

29. (New) A fluorescent protein according to claim 23, wherein the amino acid E in position 223 of the GFP has been substituted by G.

30. (New) A fluorescent protein according to claim 23 having the amino acid sequence disclosed in SEQ ID NO: 4.

31. (New) A fusion compound comprising a fluorescent protein (GFP) according to claim 23, wherein the GFP is linked to a polypeptide.

32. (New) A fusion compound according to claim 31, wherein the polypeptide is a kinase or a cytoskeletal element.

33. (New) A fusion compound according to claim 32, wherein the polypeptide is the catalytic subunit of protein kinase A, protein kinase C, or Erk1.

34. (New) A fluorescent protein according to claim 23, wherein the amino acid E in position 223 of the GFP has been substituted by an amino acid selected from the group consisting of A, V, L and I.

35. (New) A fluorescent protein, comprising a Green Fluorescent Protein (GFP) comprising an amino acid sequence wherein the amino acid at the position corresponding to position 65 of SEQ ID NO:4 is substituted with an aliphatic amino acid, and wherein the amino acid at the position corresponding to the position 223 of SEQ ID NO:4 has been substituted by an amino acid selected from the group consisting of G, A, V, L and I.